Amendments to the Claims

1. (Original) A fuel injector for a gas turbine engine comprising:

a mounting flange;

a stem extending from a proximal portion at the mounting flange to a distal portion;

a nozzle proximate the stem distal portion;

a first passageway through the stem and extending from a first inlet to a first outlet at the nozzle, the first outlet comprising a first plurality of apertures;

a second passageway through the stem and extending from a second inlet to a second outlet at the nozzle, the second outlet comprising a second plurality of apertures, generally inboard of the first plurality of apertures; and

a third passageway through the stem and extending from a third inlet to a third outlet at the nozzle, the third outlet comprising at least one third aperture, generally inboard of the first plurality of apertures.

2. (Original) The apparatus of claim 1 wherein:

the first passageway has an effective cross-sectional area larger than an effective cross-sectional area of the second passageway; and

the effective cross-sectional area of the first passageway is larger than an effective cross-sectional area of the third passageway.

3. (Original) The apparatus of claim 1 wherein:

along major portions of respective lengths, the first, second, and third passageways are within respective first, second and third conduits.

4. (Original) The apparatus of claim 3 wherein:

the first passageway includes an outlet plenum.

5. (Original) A combustor system for a gas turbine engine comprising:

a combustion chamber having at least one air inlet for receiving air;

at least a first source of a gaseous first fuel;
at least a second source of an essentially liquid second fuel; and
at least one fuel injector positioned to introduce the first and second fuels to the air.

6. (Original) The system of claim 5 wherein the first and second sources comprise portions of a fuel system having a liquid fuel supply common to the first and second sources, with the second source vaporizing the liquid fuel to form the first fuel.

7. (Original) The system of claim 5 further wherein the at least one fuel injector includes:
a pilot passageway for carrying a pilot portion of the second fuel;
a main liquid passageway for carrying a second portion of the second fuel; and
a gaseous fuel passageway for carrying the first fuel.

8. (Currently amended) A method for fueling a gas turbine engine associated with a source of fuel in liquid form, the method comprising:
piloting the engine with a pilot flow of the fuel delivered to a combustor as a liquid;
delivering a first additional flow of the fuel to the combustor as a liquid; and
~~vaporizing a portion of said fuel and~~ delivering ~~the vaporized portion as~~ a second additional flow of the fuel to the combustor as vapor.

9. (Original) The method of claim 8 wherein:
in at least certain conditions, the first and second additional flows are simultaneous.

10. (Original) The method of claim 8 wherein:
the first and second additional flows are simultaneous and a mass flow of the second additional flow is 40-70% of a total main burner fuel flow.

11. (Original) The method of claim 8 wherein:
the vaporizing comprises drawing heat to said portion from at least one system on or associated with the engine.

12. (Original) The method of claim 11 further comprising:

dynamically balancing a ratio of the first flow to the second flow based upon a combination of a desired heat extraction from the at least one system and a desired total fuel flow for the engine.

13. (New) The apparatus of claim 1 wherein:

the first, second, and third outlets are concentric.

14. (New) The apparatus of claim 1 wherein:

the first and second outlets are respective first and second circular arrays of outlet apertures.

15. (New) The apparatus of claim 14 wherein:

the third outlet is a single outlet aperture.

16. (New) The apparatus of claim 1 wherein:

an upstream portion of each of the first, second, and third passageways is formed by an upstream portion of a conduit protruding form an outboard surface of the mounting flange.

17. (New) The apparatus of claim 1 being generally L-shaped and having a leg portion and a foot portion.

18. (New) The apparatus of claim 3 further comprising:

a heat shield having leg and foot portions.

19. (New) The apparatus of claim 18 wherein:

within the leg potion of the heat shield, a plurality of collar plates each have first, second, and third apertures accommodating leg portions of the first, second, and third conduits, respectively and an outer periphery in facing proximity to an interior surface of the heat shield

. leg portion.

20. (New) The apparatus of claim 19 wherein:

the first, second, and third conduits each have a foot portion;

the second and third conduit foot portions are held spaced apart by spacers secured to one of the two so as to permit differential thermal expansion; and

the third conduit foot portion and heat shield foot portion are held spaced apart by spacers secured to one of the two so as to permit differential thermal expansion.